

WHAT IS CLAIMED IS:

1           1.    A nonaqueous electrolyte secondary battery comprising a  
2   positive electrode, a negative electrode comprising a graphite as  
3   a negative electrode active material, and a nonaqueous electrolyte  
4   comprising at least a saturated cyclic carbonic ester and  
5   containing a cyclic carbonic ester having a carbon-carbon double  
6   bond such that, when a content of the cyclic carbonic ester having  
7   a carbon-carbon double bond is  $x$  (g), a content of the graphite in  
8   the negative electrode is  $B$  (g), a specific surface area of the  
9   graphite is  $A$  ( $\text{m}^2/\text{g}$ ), a size of the crystallite of the graphite in  
10   a direction of the  $c$  axis is  $L_c$ , and a size of the crystallite of  
11   the graphite in a direction of the  $a$  axis is  $L_a$ , a condition  
12   expressed by  
13    $0.05 \times 10^{-2} \leq x/[A \times B \times 2L_c/(2L_c + L_a)] \leq 3 \times 10^{-2}$   
is satisfied.

1           2.    The nonaqueous electrolyte secondary battery according to  
2   claim 1, wherein the cyclic carbonic ester having a carbon-carbon  
3   double bond has a double bond in a ring.

1           3.    The nonaqueous electrolyte secondary battery according to

2 claim 1, wherein the cyclic carbonic ester having a carbon-carbon  
3 double bond is vinylene carbonate.

1 4. The nonaqueous electrolyte secondary battery according to  
2 claim 2, wherein the cyclic carbonic ester having a carbon-carbon  
3 double bond is vinylene carbonate.

1 5. The nonaqueous electrolyte secondary battery according to  
2 claim 1, wherein  $d_{002}$  of the graphite is in a range of 0.335 to  
3 0.338 nm as measured by X-ray diffraction analysis.

1 6. The nonaqueous electrolyte secondary battery according to  
2 claim 2, wherein  $d_{002}$  of the graphite is in a range of 0.335 to  
3 0.338 nm as measured by X-ray diffraction analysis.

1 7. The nonaqueous electrolyte secondary battery according to  
2 claim 1, wherein  $I_{110}/I_{002}$  of the graphite is in a range of  $5 \times 10^{-3}$   
3 to  $15 \times 10^{-3}$  as measured by X-ray diffraction analysis.

1 8. The nonaqueous electrolyte secondary battery according to  
2 claim 2, wherein  $I_{110}/I_{002}$  of the graphite is in a range of  $5 \times 10^{-3}$   
3 to  $15 \times 10^{-3}$  as measured by X-ray diffraction analysis.

1           9.    The nonaqueous electrolyte secondary battery according to  
2   claim 1, wherein  $I_D/I_G$  of the graphite is in a range of 0.15 to 0.7  
3   as measured by Raman spectroscopy.

1           10.   The nonaqueous electrolyte secondary battery according to  
2   claim 2, wherein  $I_D/I_G$  of the graphite is in a range of 0.15 to 0.7  
3   as measured by Raman spectroscopy.

1           11.   The nonaqueous electrolyte secondary battery according to  
2   claim 1, wherein the saturated cyclic carbonic ester in said  
3   nonaqueous electrolyte is at least one of ethylene carbonate,  
4   propylene carbonate, and butylene carbonate.

1           12.   The nonaqueous electrolyte secondary battery according to  
2   claim 2, wherein the saturated cyclic carbonic ester in said  
3   nonaqueous electrolyte is at least one of ethylene carbonate,  
4   propylene carbonate, and butylene carbonate.

1           13.   The nonaqueous electrolyte secondary battery according to  
2   claim 1, wherein said nonaqueous electrolyte contains chain  
3   carbonic ester.

1           14. The nonaqueous electrolyte secondary battery according to  
2 claim 2, wherein said nonaqueous electrolyte contains chain  
3 carbonic ester.

1           15. The nonaqueous electrolyte secondary battery according to  
2 claim 13, wherein said chain carbonic ester is at least one of  
3 dimethyl carbonate, ethyl methyl carbonate, diethyl carbonate,  
4 methyl propyl carbonate, ethyl propyl carbonate, and methyl  
5 isopropyl carbonate.

1           16. The nonaqueous electrolyte secondary battery according to  
2 claim 14, wherein said chain carbonic ester is at least one of  
3 dimethyl carbonate, ethyl methyl carbonate, diethyl carbonate,  
4 methyl propyl carbonate, ethyl propyl carbonate, and methyl  
5 isopropyl carbonate.